CREATOR
VOLUME 15 NUMBER 3

THE ROCK ETERNAL

"Trust in the LORD forever, for the LORD, the LORD, is the Rock Eternal" (Isaiah 26:4).

To my cherished friend,

I am continually amazed at how our Creator's invisible attributes are so widely seen in nature (Romans 1:20), and how often Christ uses aspects of His creation to reflect God's beauty, power, wisdom, love, and faithfulness. There are several places in the Bible that refer to our Lord Jesus Christ as the "Rock." So I am excited to share with you what I have learned about rocks and how they resonate His glory!

ROCKS

God's creation of rocks can be likened to the works of a master chef. We might even say that His design of Earth reveals three basic "cooking" techniques:

1) Christ Jesus uses temperatures approaching 2,000° F (1,100° C) to fuse together some of the minerals of Earth's crust into *igneous* (IG - nee - us) *rocks*—not unlike dough baked in a super-hot oven.

2) He also mixes together bits of stone (mud, clay, or sand) and sandwiches these into *sedimentary rock*—like a multi-layered cake.

3) Using Earth as a kind of "pressure cooker," Jesus heats and squeezes igneous and sedimentary stone still further, creating *metamorphic rocks*.

We can't eat rocks, of course, but with our eyes and other senses we can feast on the glory of God displayed in them! There are so many "rocky treats" for us to enjoy every day; many are overlooked.

As magma in the Earth's crust cools, it crystallizes into extremely tough igneous rock. *Granite* and *basalt* (buh - SALT)—the two most abundant types of igneous rock—have been widely used throughout history in the construction of buildings. The dark-stoned Gothic cathedrals of Europe have weathered

Rhodochrosite

hundreds of years because they are made of igneous rock. These structures withstand centuries of wear because granite and basalt are very hard and durable. Many monuments, tombstones, and statues are also composed of granite for the same reason. All this dimly illustrates one possible reason why our Lord calls Himself "the Rock Eternal" (Isaiah 26:4)—because He endures forever (Hebrews 13:8).

Like an assortment of fine chocolates, the texture of igneous rocks can vary depending on how rapidly they cool. Examine a piece of

granite closely and you will discover that it has a "salt and pepper" appearance. Christ mixes together several different mineral ingredients to create granite—chiefly *feldspar*, *quartz*, and *mica*. These minerals are visible to the naked eye because the Lord allows granite to cool slowly enough to form small but beautiful crystals. *Pegmatite*, another type of igneous rock, showcases rather large crystals because it cools even more slowly. If lava cools very quickly, sometimes no crystals form and volcanic glass, or *obsidian,* is the result.

Generally speaking, however, when lava exits a volcano rapidly, it transforms into fine crystaline *basalt*. Basalt contains the minerals *feldspar*, *pyroxene*, and *olivine*, but unlike granite, they can only be seen with a microscope. The minerals of basalt are black to rich green in color, making basalt a much darker rock than granite (which is usually white, pink, or orange).

By altering *ingredients*, experienced bakers can produce a wide range of bread products, and so Christ, the "Master Chef," forges a variety of igneous rocks that fall in between granite and basalt in composition. Just as sourdough and pumpernickel represent very different types of bread (based on the *ingredients* used), granite and basalt are part of a large spectrum of igneous rocks.

The second major type of rock—*sedimentary rock*—reminds me of the Greek dessert, baklava (pronounced bah - kluh - VAH), which consists of layer after layer of paper-thin dough, ground nuts, and honey. God's "baklava," however, is prepared with fine

Sedimentary rock *Baklava*

grains of igneous and metamorphic rocks built up into various sediments at or near the Earth's surface. Jesus uses clay, sand, shells, and many other "fixings" to form sedimentary rocks.

The names of sedimentary rocks are often very descriptive of their ingredients. *Sandstone* is made from sand that has been cemented together and *mudstone* comes from cured mud. Sometimes the Lord sticks several large rocks and pebbles to each other, forming *conglomerates* (smooth pebbles glued to one another) and *breccias* (a mass of rough-cut or sharp-edged stones; pronounced BRECH - ee - ah).

Breccia

Limestone, another sedimentary rock, is derived from dissolved calcium carbonate as water evaporates. Limestone often includes the hard parts of small sea creatures. *Chalk*, a type of limestone, consists of billions of *microscopic seashells*. (The "chalk" used on sidewalks and blackboards is different—it is commercially manufactured from the mineral *gypsum*.)

Yeshua✡ also creates a unique set of sedimentary stones that result in something like rock candy. As water in pools of brine

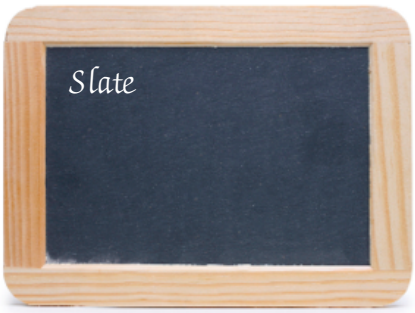
Rock salt
made of the mineral halite

evaporates, *rock salt* and *rock gypsum* (calcium sulfate) are formed.

Rocks created from sediments have long provided people with a number of useful materials. Cement comes from crushed limestone. Limestone blocks were popular in buildings of the past; sandstone has also been a common construction material. Halite is a source of table salt. Powdered gypsum is frequently added to paint, and is the main ingredient of drywall or "sheet rock" and plaster of Paris.

The third type of stone created by our Heavenly Father—through His Son Jesus—is *metamorphic rock*. This results from the squeezing and baking of other rocky materials to create something akin to incredibly hard meatloaf. When mountains were first formed, the Almighty applied a great deal of pressure (enough to crush a car to the thickness of a piece of paper!) and heat (up to 1,200° F or 650° C) to force the structure of underlying rock to recrystallize (or metamorphose). What resulted was a wide variety of what we call metamorphic rocks. God often changes the consistency of igneous and sedimentary rocks in this way.

The quality and texture of any meatloaf are greatly affected by the ingredients used and the length of time the dish is left in the oven. In a similar fashion, igneous and sedimentary rocks can show differing degrees of change depending on how long the Lord "kneads" and "bakes" them. *Slate*—a dark, very flat metamorphic rock that was once used to make blackboards—is actually "oven roasted" *shale* (a sedimentary rock). Additional



cooking will transform slate into yet another metamorphic rock called *schist*. Apply even more heat and pressure to schist and it turns into *gneiss* (pronounced "nice")—which is not

✡ Hebrew for "Jesus"

what our meatloaf would be after so much cooking! Gneiss has the same mineral makeup as granite; however, gneiss' crystals of feldspar, quartz, and mica form handsome bands and stripes, not the typical "salt and

Gneiss
"nice"

pepper" appearance of granite.

If Jesus heats and squeezes limestone, He can transform it into a metamorphic rock called *marble*. Pure marble is white and, for centuries, has been carved into statues and used to decorate buildings. Mineral impurities in marble produce an almost infinite variety of highly-prized swirls and beautiful designs.

One final metamorphic rock I will mention is *quartzite*. Common quartzite is transformed sandstone. Many of the rounded stones fished out of rivers, streams, and lakes and found along the seashore by children are weathered quartzite.

Quartzite

You may have noticed that the names of rocks and minerals frequently end with "ite." The suffix "ite" comes from the Greek word *ites*, which means "the essence of or belief in." The rock *quartzite* is the essence of *quartz* because it comes from quartz; *halite* is the essence of *hals* (Greek for "salt"); and the mineral *bauxite* is from *Les Baux*, a region in France where it was discovered.

MINERALS

The foundations of the city walls were decorated with every kind of precious stone....jasper... sapphire...chalcedony...emerald...sardonyx... carnelian...chrysolite...beryl...topaz...chrysoprase... jacinth...amethyst (Revelation 21:19-20).

Accomplished chefs use a large number of spices and ingredients in their culinary masterpieces. It would be nearly impossible to reproduce a prized dish without first knowing the recipe. Likewise, it is difficult to understand the nature of rocks without knowing something about the minerals that form them. As we discovered earlier, granite is composed of three different minerals. God created all rocks by mixing together one or more minerals.

Minerals are usually solid substances (mercury is an exception) made of specific chemicals with very predictable properties. If we applied this principle to the cooking world, then cocoa would be considered a "mineral" because of its characteristic taste.

Some minerals consist of only one type of chemical element.* Gold, diamonds, and copper are examples.

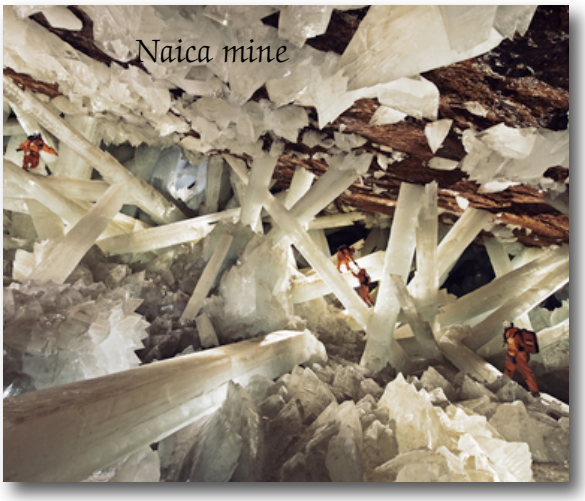
Most minerals, however, are formed when Jesus joins together two or more elements. *Quartz*, for instance, is silicon dioxide**—a compound consisting of one silicon atom glued to two oxygen atoms. *Feldspar* is also comprised of silicon and oxygen with a pinch of aluminum added. And the mineral *mica* contains, among other things, the ingredients iron and magnesium.

Altogether, there are roughly 4,000 different minerals that our Lord Jesus uses to fashion rocks. (It's interesting to note that our bodies

* An element is a substance composed of a single kind of atom. Read about elements in ***CREATOR*** Volume 12 Numbers 1 & 2.
** SiO_2

need several minerals in order to stay healthy.) And geologists use many characteristics to distinguish all of these minerals from each other.

Most minerals form *crystals*. The size and shape of these crystals can help with identification. Although mineral crystals are usually smaller than a fist, some grow to enormous size. Recently,* giant crystals of *selenite* were discovered in the Naica Mine of Mexico, each weighing thousands of pounds (thousands of kilograms)!



How many people do you see in this photo?

Not all minerals, however, form crystals; *opal* is an example. The Lord's creation of this gemstone is quite fascinating. Opal has the same chemical composition as *sand* with an interesting twist—Jesus combines *water* with silicon dioxide to create this iridescent stone, which often possesses a kaleidoscope of colors.

Opal may contain as much as 20 percent water and can lose its etheral beauty if allowed to dry out too quickly after being mined. Essentially a mysterious combination of sand and water, it's as if God has locked away inside this special stone a tiny portion of the seashore! (The next time you see an opal, please check if there are any waves splashing around inside... Just kidding.)

The importance of mineral crystals cannot be overstated, because crystals are found everywhere on Earth. Even plants and animals possess crystals. (Bones and teeth, for instance, contain crystals of the mineral *apatite*.)

Color is another method of identifying minerals. Our precious Lord Jesus reveals His infinite creativity and loveliness in this way (please see the mineral *rhodochrosite* on the front page). Every color of the rainbow is represented among minerals and some minerals have many complexions. Pure quartz, for example, is clear, but can also be white (milky quartz), yellow (citrine), pink (rose quartz), purple (amethyst), or black (smoky quartz).**

The mode that God uses to paint these different hues of quartz is also very interesting. Smoky quartz gets its gray-black appearance after being exposed to radioactivity in the Earth's crust. The pink color of rose quartz results from Jesus adding a dash of titanium. And amethyst is a type of quartz made purple by mixing in a "smidge" of iron.

Another time-honored way of identifying a mineral is by determining its *hardness*. In 1822, Frederich Mohs invented a means of ranking minerals according to their ability to *scratch other minerals or resist being scratched*. He devised a scale from one to ten (now called

* The "Crystal Cave of Giants," as it's called, was discovered in April 2000.

** Please see ***kids' kreation*** #64 for examples of quartz.

the *Mohs scale*), with the soft mineral *talc* representing "one," and diamond—the hardest substance in the world—representing "ten."

As we go down the scale, the next mineral in line is quite a bit harder than the one before it—calcite is harder than gypsum, apatite is harder than fluorite. We see that the Mohs scale covers a lot of ground when we realize that diamonds are almost four million times harder than talc!

Each of the minerals on the Mohs scale is able to scratch minerals of a lesser value and is scratched by minerals of a higher number. Quartz (7) can scratch calcite (3), for instance, but is itself scratched by diamond (10). By testing an unknown mineral with these "Mohs rocks," it is possible to determine its relative hardness, and this helps with identification.

There are several other properties that geologists can use for identification of minerals, like *specific gravity* (the density of an object compared to the density of water). Usually, the heavier a mineral, the higher is its specific gravity.

Specific gravity of a few minerals compared to water

1 – water

2.5 – quartz

5 – pyrite

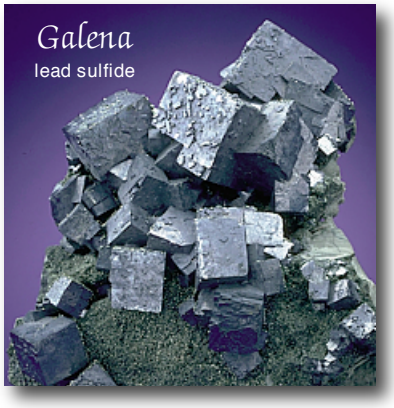
10.5 – silver

19 – gold

Scientists who study minerals often describe them by their *luster*—that is, how they reflect light. Gold, pyrite, galena, and silver all have *metallic* luster. Quartz is said to possess a *glassy* luster, and minerals that reflect light poorly, such as bauxite, are called *earthy*.

In addition to the above, some minerals, like silver, are *malleable*—they can be pounded into different shapes using a hammer; some are *magnetic*, such as magnetite; some *react with strong acid* to produce bubbles (calcite does this); and some are *flexible*, such as mica.

Minerals are often both beautiful and useful at the same time. Most of the world's lead comes from galena. Sphalerite is the main



source of zinc, and tin originates from the mineral cassiterite. Graphite, the chief component of "lead" pencils, is frequently added to paint and is applied as a lubricant to

moving metal parts. Quartz is used to make glass, and feldspar is essential in the manufacture of porcelain.

The relatively abundant and very hard mineral *corundum* is composed of aluminum oxide ("nine" on the Mohs scale). Christ then creates the *ruby*—a much rarer rock—by

adding a small dash of chromium to corundum. And using a "splash" of iron or titanium, God can transform ordinary corundum into *sapphires*. *Emeralds* ("eight" on the Mohs scale) also contain the "spice" of chromium diffused throughout the commonplace crystal *beryl*.

Both corundum and industrial-grade diamonds are used to grind and polish rocks and other materials. Alumium oxide sandpaper, for instance, is coated with fine grains of corundum. In the past, the tip of a dentist's drill was studded with numerous tiny diamond chips. This extremely hard mineral is needed to penetrate the rather tough enamel of your teeth. (Aren't you glad I told you this?)

STONES OF CHRIST

"Therefore everyone who hears these words of Mine and puts them into practice is like a wise man who built his house on the Rock" (Matthew 7:24).

As I was mulling over how rocks reflect the character of our Lord, my mind was drawn back to granite. I recalled that granite showcases three types of mineral crystals, interlocked together, forming an enduring stone. It is one rock with three minerals and in this way, granite *dimly* illustrates the Trinity.* The Bible teaches us that the Almighty is three Persons—the Father, Jesus Christ, and the Holy Spirit—but One God. God is Spirit and, therefore, granite can be only a *faint shadow* of the Trinity. The nature of God is hard for people to grasp. Jesus alludes to this in John chapter 10 when He says, "I and the Father are One" (vs. 30).

Each of granite's three minerals can be seen, on close examination, to be *distinct yet not separate* from the others. Remove any of these three minerals, and it ceases to be granite; all three must be present. If any one of the three Persons of the Trinity disappeared, God would then cease to be God.

Rocks and minerals can also represent those of us who are *being perfected in Christ*. Through Peter, the Holy Spirit teaches that Christians are "like living stones...being built into a spiritual house..." (1 Peter 2:5). God the Rock wants us to reflect His character (Eph. 4:24) and stand firm in Him (Psalm 40:2).

But the Bible also teaches that as humans we are born of dust and, because of our sins, will return to dust after we die (Genesis 3:19). The problem with dust is that it has no life and no foundation, and it is easily scattered by the

* Unfortunately, nothing in creation—not even granite—accurately illustrates the Trinity!

wind. We have a dilemma! We can live forever, but first we must be transformed into the likeness of Christ (1 Corinthians 15:49). But how?

An "Israelite" is one who belongs to Israel. Figuratively speaking, we must become "Jesusite" or one who belongs to Jesus—the precious rock or "essence of Jesus" (please read Isaiah 51:1).

Oh dear friend, Christ came into the world and died on a cross to forgive our sins, so that sin's destructive power could be nullified for all eternity. To receive God's pardon, we must believe that Jesus Christ is God, One with His Father and the Holy Spirit, and that Christ died to pay the penalty for our sins, rose to life, and is now enthroned in Heaven. We must surrender ourselves to Jesus Christ and trust Him with our very lives. This is a serious commitment, and I must caution you that you will face difficulties if you make it (Acts 14:22). Your life will not be without trials and stress. But God promises to help you and will be with you every step of the way (Psalm 34:19; Hebrews 13:5). He will never give up on you, for "...He who began a good work in you will carry it on to completion until the day of Christ Jesus" (Philippians 1:6). Out of love, our Lord God will chip away at you like marble, using your weaknesses to bring Himself glory. He will sculpt you into a living image of His Son, Jesus Christ (2 Corinthians 3:18).

My hope for you is that Christ will give you the same attitude as the writer of Psalm 61:

> From the ends of the earth I call to you,
> I call as my heart grows faint; lead me to
> the Rock that is higher than I (vs. 2).

Then you can become "Jesusite," the pure stone of Christ.

"Oh, Father in Heaven, I confess that I have lived my life in rebellion against You, and this is sin. Please forgive me through Your Son, Jesus Christ—through His death on a cross. Jesus, I turn away from my sins and look to you as my only hope. I embrace You as my all-powerful God, my sweet Savior, and my Indestructible Life. Show me how to live the way You want me to live, and allow me to see and hear Your praises throughout the universe! In Your name, Lord Jesus Christ, I pray. Amen."

In the warmth and sincerity of Christ's love,

Your Friend

❑

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